IMPORTANT INFORMATION KEEP FOR OPERATOR IMPORTANT INFORMATION

OPERATOR MANUAL

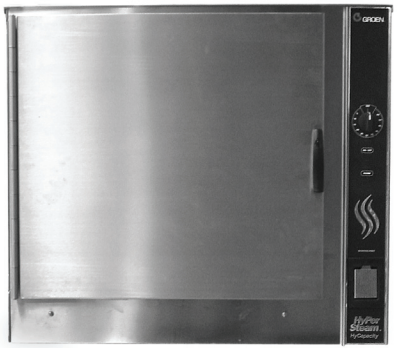
Part Number 148667 Rev. D

OM-HY-12E/24E

DOMESTIC

Model: HY-12E and HY-24E
HyCapacity HyPerSteam™
Atmospheric Convection
Steamer

Self-Contained
Electric Heated



Model HY-12E

Model HY-24EF (New Model)

THIS MANUAL MUST BE RETAINED FOR FUTURE REFERENCE. READ, UNDERSTAND AND FOLLOW THE INSTRUCTIONS AND WARNINGS CONTAINED IN THIS MANUAL.

FOR YOUR SAFETY
DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

groen

MADE IN USA

IMPORTANT - READ FIRST - IMPORTANT

WARNING: THE UNIT MUST BE INSTALLED BY PERSONNEL QUALIFIED TO WORK WITH ELECTRICITY AND PLUMBING. IMPROPER INSTALLATION CAN CAUSE INJURY TO PERSONNEL AND/OR DAMAGE TO THE EQUIPMENT. THE UNIT MUST BE INSTALLED IN ACCORDANCE WITH APPLICABLE CODES.

CAUTION: DO NOT INSTALL THE UNIT IN ANY WAY WHICH WILL BLOCK THE RIGHT SIDE VENTS, OR WITHIN 12 INCHES OF A HEAT SOURCE SUCH AS A BRAISING PAN, DEEP FRYER, CHAR BROILER OR KETTLE.

NOTICE: Level the unit front to back, or pitch it slightly to the rear, to avoid drainage problems.

CAUTION: DO NOT LOCATE THE CABINET DIRECTLY OVER A FLOOR DRAIN OR FLOOR SINK. HUMIDITY OR WATER FROM A DRAIN WILL DAMAGE ELECTRICAL PARTS OF A UNIT.

WARNING: TO AVOID DAMAGE OR INJURY, FOLLOW THE WIRING DIAGRAM EXACTLY WHEN CONNECTING A UNIT.

WARNING: DO NOT CONNECT THE DRAIN DIRECTLY TO A BUILDING DRAIN.

CAUTION: DO NOT USE PLASTIC PIPE. DRAIN MUST BE RATED FOR BOILING WATER.

WARNING: BLOCKING THE STEAM GENERATOR OR CAVITY DRAIN SCREEN MAY BE HAZARDOUS.

IMPORTANT: Improper drain connection will void warranty.

WARNING: WHEN YOU OPEN THE DOOR, STAY AWAY FROM STEAM COMING OUT OF THE UNIT. STEAM CAN CAUSE BURNS.

WARNING: BEFORE CLEANING THE OUTSIDE OF THE STEAMER, DISCONNECT THE ELECTRIC POWER SUPPLY. KEEP WATER AND CLEANING SOLUTIONS OUT OF CONTROLS AND ELECTRICAL COMPONENTS. NEVER HOSE OR STEAM CLEAN ANY PART OF THE UNIT.

WARNING: ALLOW COOKING CHAMBERS TO COOL BEFORE CLEANING.

WARNING: CAREFULLY READ THE WARNINGS AND FOLLOW THE DIRECTIONS ON THE LABEL OF EACH CLEANING AGENT. USE SAFETY GLASSES AND RUBBER GLOVES AS RECOMMENDED BY DELIMING AGENT MANUFACTURER.

WARNING: DO NOT MIX DE-LIMING AGENTS (ACID) AND DE-GREASERS (ALKALI) IN THE STEAM GENERATOR OR ON THE COOKING CHAMBER WALLS.

WARNING: DO NOT PUT HANDS OR TOOLS INTO THE COOKING CHAMBER UNTIL THE FAN HAS STOPPED TURNING.

WARNING: DO NOT OPERATE THE UNIT UNLESS THE REMOVABLE RIGHT SIDE PANELS HAVE BEEN RETURNED TO THEIR PROPER LOCATIONS.

NOTICE: Do not use a cleaning or de-liming agent that contains any sulfamic acid or any chloride, including hydrochloric acid. If the chloride content of any product is unclear, consult the manufacturer.

WARNING: USE OF ANY REPLACEMENT PARTS OTHER THAN THOSE SUPPLIED BY GROEN OR THEIR AUTHORIZED DISTRIBUTOR VOIDS ALL WARRANTIES AND CAN CAUSE BODILY INJURY TO THE OPERATOR AND DAMAGE THE EQUIPMENT. SERVICE PERFORMED BY OTHER THAN FACTORY-AUTHORIZED PERSONNEL WILL VOID ALL WARRANTIES.

WARNING: HIGH VOLTAGE EXISTS INSIDE CONTROL COMPARTMENTS. DISCONNECT FROM BRANCH BEFORE SERVICING. FAILURE TO DO SO CAN RESULT IN SERIOUS INJURY OR DEATH.

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Equipment Description

Your Groen HY-12E HyCapacity HyPerSteam is designed to give years of service. It consists of a stainless steel cavity (cooking chamber) which is served by an electrically-heated atmospheric steam generator. The HY-24EF has two cavities and two generators. Two powerful blowers circulate the steam in each cavity to increase heating efficiency.

A dual position pan rack on the left side of the cavity can be quickly changed to allow for the use of either 12" x 20" steamer pans, or 18" x 26" bake pans. The following table lists pan capacities:

Pan Size/Type	Number of Pans	
	HY-12E	HY-24EF
12 x 20 x 2 ” (steamer)	12	24
12 x 20 x 4" (steamer)	8	16
13 x 18" (half-size bake)	24	48
18 x 26" (bake)	12	24

A stainless steel cabinet encases the cavity, steam generator and a control compartment which houses electrical components. Access to the control compartment is gained by removing the right side louvered panel. Door hinges are reversible so that the door may be opened to the left or right. Operating controls are on the front panel.

Newer model HY-12E and HY-24EF steamers (manufactured since November 1999) are equipped with fully electronic controls and a button-activated pre-programmed CLEAN cycle.

These units are readily identified by their unique control panels. Touch pad controls, and the distinctive symbol for steam is integrated into the panel design. The new models also have fewer panel louvers on the right side and rear.

The drain system includes a spray condenser, which helps keep steam from coming out of the unit drain or entering the building’s drain.

The HY-24EF has two independent cavities, each with its own steam generator (New model shown).

Water Conditioning

It is essential to supply the steam generator with water that will not form scale. Even though the steam generator is engineered to minimize scale formation, scale development depends on the hardness of your water and the number of hours the equipment operates.

In some areas of the country, water is low enough in minerals to avoid scale formation. But most water supplies are full of minerals which form scale. It is this scale which could lead to an early component failure. Your water utility or treatment specialists can test and tell you about the minerals in your water. The water going to the steam generator should have between 10 and 30 parts per million (ppm) total dissolved solids (TDS) and should have a pH (acidity rating) of 7.0 or higher.

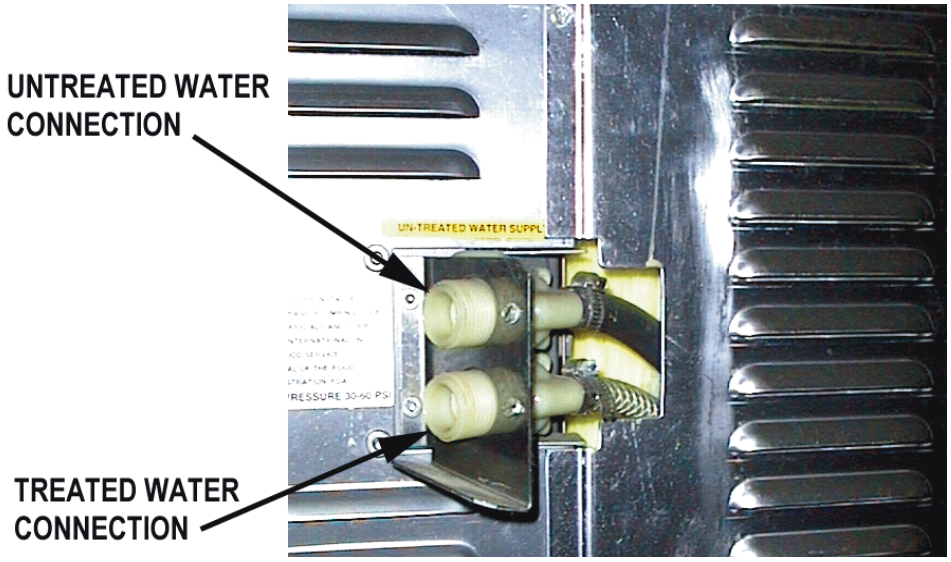
Please follow these simple precautions:

1. The best way to prevent scale is to use a Groen PureSteem™ Water Treatment System which has been specifically designed for Groen steamers and combination ovens. **Do not rely on unproven water treatment systems** sold for scale prevention and removal. **They are not specifically designed to work with Groen steamers and combination ovens.**

2. A well-maintained water treatment system and a regular cartridge replacement schedule is essential.

3. Using a Groen PureSteem™ Water Treatment System will provide longer steam generator/boiler life, higher steam capacity, and reduce maintenance requirements.

4. If you notice a slowdown in steam production or an increase in deliming, have the steamer checked for scale build-up. This could be an indication that the water treatment cartridges need replacing. Heavy scale reduces the unit's ability to boil water, and can even cause component failure.



The optional separate water intake can significantly reduce treated water volume requirements.

Installation and Start-Up

WARNING

THE UNIT MUST BE INSTALLED BY PERSONNEL WHO ARE QUALIFIED TO WORK WITH ELECTRICITY AND PLUMBING. IMPROPER INSTALLATION CAN CAUSE INJURY TO PERSONNEL AND/OR DAMAGE TO THE EQUIPMENT. THE UNIT MUST BE INSTALLED IN ACCORDANCE WITH APPLICABLE CODES.

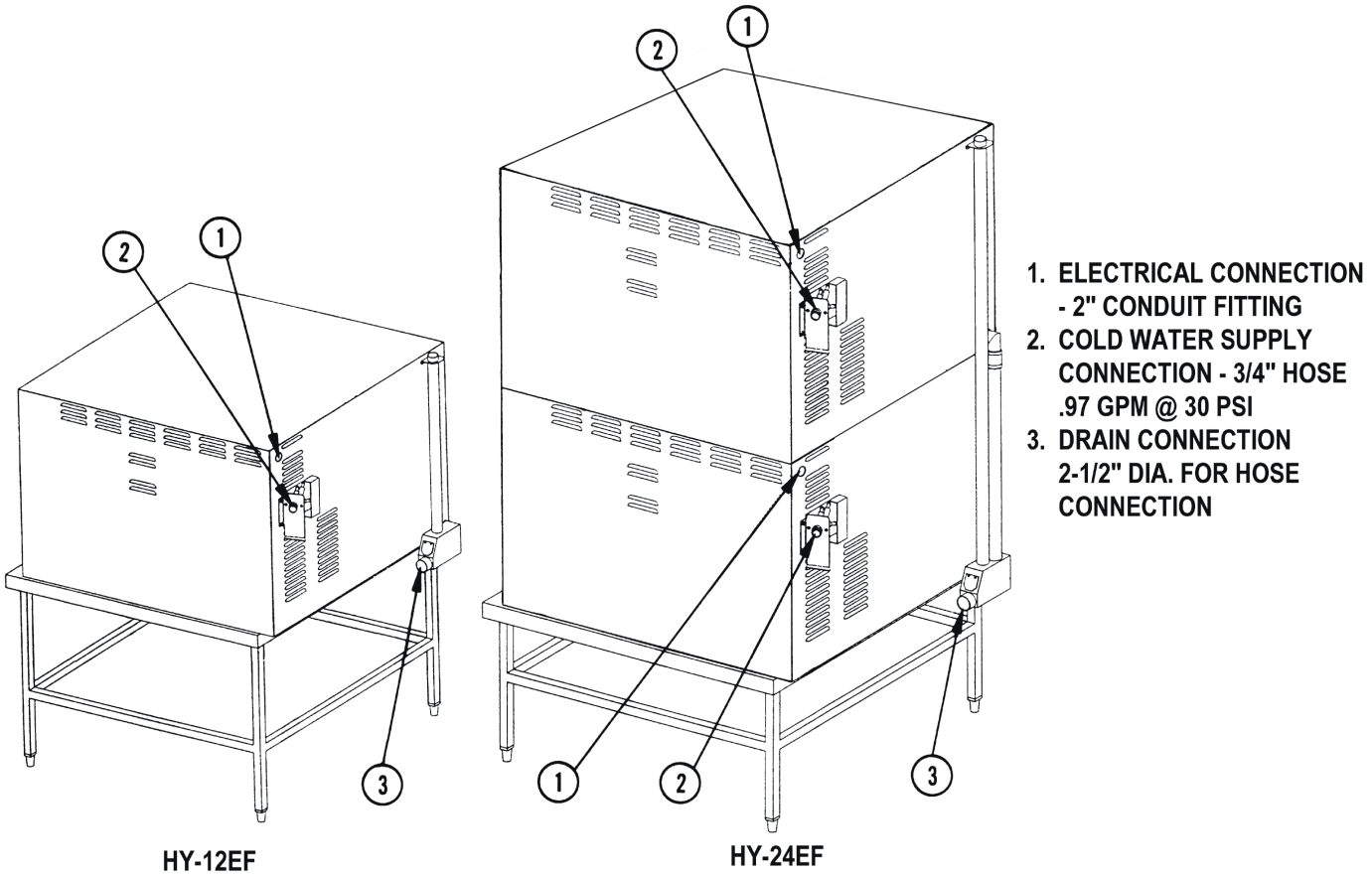
WARNING

TO AVOID DAMAGE OR INJURY, FOLLOW THE ELECTRICAL SCHEMATIC EXACTLY WHEN CONNECTING THE UNIT.

CAUTION

DO NOT INSTALL WITH THE RIGHT SIDE VENTS BLOCKED OR WITHIN 12 INCHES OF A HEAT SOURCE (BRAISING PAN, DEEP FRYER, CHAR BROILER, OR KETTLE). TO AVOID DRAINAGE PROBLEMS, LEVEL THE UNIT FRONT TO BACK.

A. Installation



1. ELECTRICAL CONNECTION - 2" CONDUIT FITTING
2. COLD WATER SUPPLY CONNECTION - 3/4" HOSE .97 GPM @ 30 PSI
3. DRAIN CONNECTION 2-1/2" DIA. FOR HOSE CONNECTION

1. Electrical Supply Connection

a. *Panel Removal*

Open the wiring and control panel by removing the three screws on the right side panel and sliding the panel forward. Set the panel aside.

b. *Supply Voltage*

The unit must be operated at the rated nameplate voltage, plus or minus 10 percent.

c. *Terminal Block*

The terminal block for incoming power is located at the back of the control compartment.
The ground terminal is located in the wiring compartment above the terminal block.

The unit must have a separate ground wire for safe operation. This wire must be at least 8 AWG for 208/240V, or 10 AWG for 480V.

d. *Supply Wire*

To determine the wire you need for the power supply, find the operating voltage and phase on the unit data plate. Refer to the table below or to the label on the unit's back for correct wire size and insulation temperature rating. The "Electrical Supply Connection" label inside the unit gives directions for proper connection of the terminal block jumpers.

The specified wire must be used in order to meet Underwriters Laboratories and National Electric Code requirements.

The knockout hole is sized for a two inch conduit fitting.

e. *Branch Circuit Protection*

Groen strongly recommends that the HY-12E Steamer or each cavity of the HY-24EF have its own branch circuit protection. Each current-carrying conductor must have overcurrent protection. Refer to the label for proper wire size and type. Watertight connections to the unit are required.

2. Water Connection(s):

Install a check valve to prevent back flow in the incoming cold water line, as required by local plumbing codes. Water pressure in the line should be between 30 and 60 PSIG (210 and 420 kPa). If pressure is above 60 PSIG, a pressure regulator will be needed. A inc h R connector (garden hose type) is used to attach the water supply to the water inlet valve. The minimum water feed line diameter is inc h (13mm). Use a washer in the hose connection. Do not allow the connection to leak, no matter how slow it may be.

If you have the twin water connection option, put the treated water (softened) to the bottom intake (facing the rear of the unit), and untreated water to the top. Connections for both are made as described above.

Voltage	Wiring - Insulation Rating		Amperes	Maximum KW
	THWN (70ºC)	THWN (90ºC)		
208 Volt, 3 Phase	Not Approved	1/0 AWG	92	32.5
240 Volt, 3 Phase	Not Approved	1 AWG	80	32.5
480 Volt, 3 Phase	1 AWG	6 AWG	40	32.5

3. Drain Connection

The HY-12E/24E Steamer must be leveled front to back or pitched slightly to the rear by adjustment of the bullet feet on the cabinet base.

All units are shipped from the factory with a drain box and vent pipe. The drain box and vent pipe provide the necessary air gap when properly installed. The illustrations below show proper installation of drain lines from the drain box, and for tabletop installation, without a drain box.

CAUTION
DO NOT CONNECT THE HOSE DIRECTLY TO A BUILDING DRAIN. BLOCKING THE DRAIN COULD BE DANGEROUS.

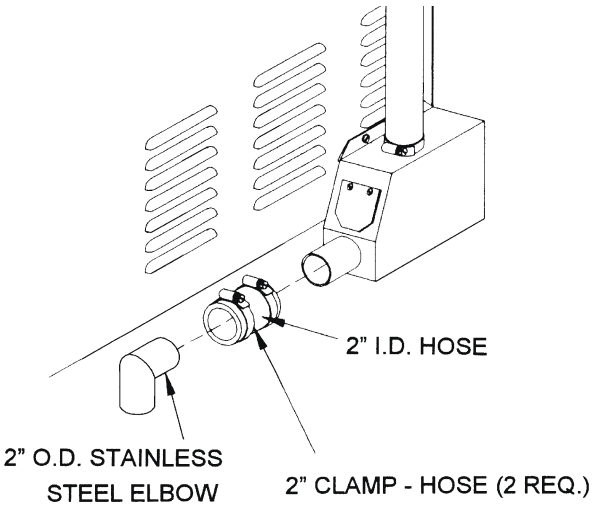
Do not create any water traps in the drain line. A trap would cause pressure to build up inside the cavity during steaming and make the door gasket leak.

NOTE: Improper drain connection will void the warranty.

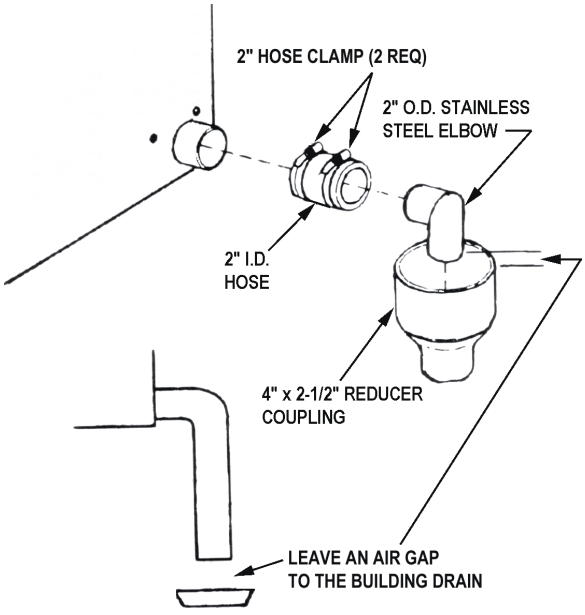
INSTALLATION OPTION ONE: From stainless steel elbow (P/N 092273) to nearby floor drain, use Radiator Hose (rated at least 212ºF) and one additional hose clamp (P/N 013616).

INSTALLATION OPTION TWO: Using the hose (P/N 080688) and two hose clamps (P/N 013616), connect two inch copper tube to floor **drain. NOTE:** Drain lines must be pitched downward at approximately inc h per foot. No water traps should be allowed in the drain line.

IMPORTANT: Leave two inches free air gap to building drain.



Drain Connection with Drain Box (All units are shipped from the factory with a drain box). *Old model shown.*



Installation of drain line without drain box (tabletop models only).

B. Initial Start-Up

After your Steamer has been installed, test it to see that each cavity is operating correctly.

1. Remove literature and packing materials from inside and outside the unit.

2. Make certain that the water supply line is open.

2. Turn on electrical power to the unit.

3. Press the Power ON/OFF touch pad ("ON" switch on older models). The steam generator will fill with water.

NOTE: The door must be closed for the main (high) heater to work.

4. Within six to 10 minutes the READY indicator light should come on. This indicates that the water has reached the standby temperature (near boiling). When the READY light is displayed, the operator may take any of the following steps:

   a. Set the timer to the time desired for timed steaming.

   b. Turn the timer knob to the ON position for continuous steam.

   c. Allow the unit to remain at standby temperature until needed.

WARNING
WHEN YOU OPEN THE DOOR STAY AWAY FROM STEAM COMING OUT OF THE UNIT. THE STEAM CAN CAUSE BURNS.

5. To shut down the unit, press the ON/OFF touch pad (turn the ON switch to the OFF position on older models). The steam generator will drain automatically.

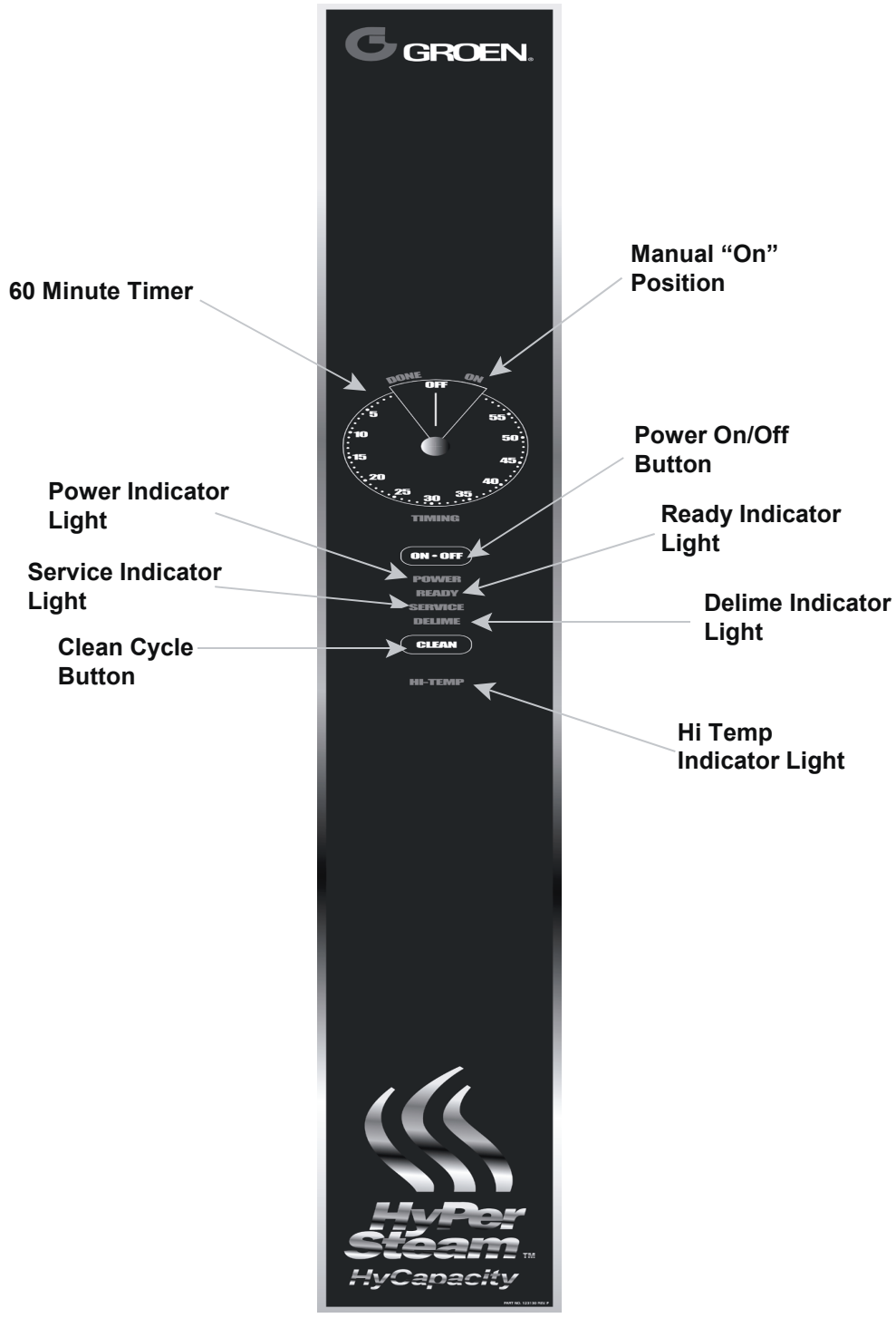
If the Steamer works as described, it is working properly, and is ready for use.

Operation

WARNING
ANY POTENTIAL USER OF THE EQUIPMENT SHOULD BE TRAINED IN SAFE AND CORRECT OPERATING PROCEDURES.

A. Controls

Operator controls are located on the front right of the unit.



The control panel on new models has the following touch pads and indicator lights:

- ! The ON/OFF touch pad gets the HyPerSteam ready for use, or shuts it off.
- ! The READY indicator light shows that the steam generator is at standby temperature and the cavity is hot enough to begin steaming.
- ! The DELIME indicator light is lit when the unit is operating in the cleaning mode.
- ! The SERVICE indicator light shows when the water level probes have stopped working, and need to be cleaned (normally an indication of lime deposits).

  When one probe is not working, the DELIME light flashes briefly every few seconds. If both probes fail, the SERVICE light flashes continuously and the beeper will sound.
- ! The HI TEMP indicator light comes on when the steam generator is too hot.

  The unit will automatically shut off, and cannot be turned on again until the steam generator cools and the HI TEMP indicator light goes out.
- ! The TIMING indicator light stays on when the timer is running.
- ! The CLEAN touch pad is used to start the automatic 30 minute cleaning cycle.

The timer is used in three ways:

1 In the OFF position the steam generator stays at a low boil or “holding” temperature.

2 When a cook time is set, the unit steams until the timer runs down to OFF. Steaming stops, the DONE light (a red light on older models) comes on and a beeper sounds.

3 With the timer turned to the ON position, the unit steams continuously. The green light stays lit. The steamer will **not** time down.

B. Operating Procedure

1. Press the ON switch/pad for the steamer. The steam generator will fill, and heat until the READY light comes on. (About 10 minutes.)
2. Load food into pans in uniform layers. Pans should be filled to about the same levels, and should be even on top.
3. Open the door and slide the pans onto the supports. If you will only be steaming one pan, put it in the middle position.
4. Close the door. With the READY indicator lit, take one of the following steps:

   - ! If you want to steam the food for a certain length of time, set the timer for that period. The timer will automatically run the steamer for the set time and then turn it off. A red light will come on and a beeper will sound. Steam production stops.
   - ! If you want to steam continuously, turn the timer to the manual ON position. A green light will come on. The unit will continue steaming until you stop it by turning the timer to OFF. When steaming continuously YOU MUST CONTROL STEAMING TIME.

WARNING
WHEN YOU OPEN THE DOOR, STAY AWAY FROM THE STEAM COMING OUT OF THE UNIT. THE STEAM CAN CAUSE BURNS.

5. Open the door. Remove the pans from the steamer, using hot pads or oven mitts to protect your hands from the hot pans.
6. To shut down the unit, press the ON switch/pad to OFF. The steam generator will automatically drain.

Cleaning

To keep your HY-12E/24EF Steamer in proper working condition, use the following procedure to clean the unit. This regular cleaning will reduce the effort required to clean the steam generators and cavities.

A. Suggested Tools

1. Mild detergent
2. Stainless steel exterior cleaner such as Zepper
3. Steam generator de-liming agent, such as **Groen Delimer Descaler,** Lime-Away® or an equivalent. A liquid de-liming agent will be easier to use than crystals or powders. See the warning about chlorides, below.
4. De-greaser, such as EncompasS®, Malone 34®, Puritan Puribrute®, or Con-Lie®
5. Cloth or sponge
6. Plastic wool or a brush with soft bristles
7. Spray bottle
8. Measuring cup
9. Nylon pad
10. Towels
11. Plastic disposable gloves
12. Funnel

B. Procedure

1. Unit Exterior

a. Prepare a warm solution of the mild detergent as instructed by the supplier. Wet a cloth with this solution and wring it out. Use the moist cloth to clean the outside of the unit. Do not allow freely running liquid to touch the controls, the control panel, any electrical part, or any open louver.

b. To remove material which may be stuck to the unit, use plastic wool, a fiber brush, or a plastic or rubber scraper with a detergent solution.

c. Stainless steel surfaces may be polished with a recognized stainless steel cleaner such as Zepper®.

WARNING

DISCONNECT THE POWER SUPPLY BEFORE CLEANING THE OUTSIDE OF THE STEAMER.

KEEP WATER AND CLEANING SOLUTIONS OUT OF CONTROLS AND ELECTRICAL COMPONENTS. NEVER HOSE OR STEAM CLEAN ANY PART OF THE UNIT.

DON'T MIX DE-LIMING AGENTS (ACID) WITH DE-GREASERS (ALKALI) ANYWHERE IN THE UNIT.

AVOID CONTACT WITH ANY CLEANERS, DE-LIMING AGENT OR DE-GREASER AS RECOMMENDED BY THE SUPPLIER. MANY ARE HARMFUL. READ THE WARNINGS AND FOLLOW THE DIRECTIONS!

EVEN WHEN THE UNIT HAS BEEN SHUT OFF, DON'T PUT HANDS OR TOOLS INTO THE COOKING CHAMBER UNTIL THE FAN HAS STOPPED TURNING.

DON'T OPERATE THE UNIT UNLESS THE TWO REMOVABLE INTERIOR PARTITIONS HAVE BEEN PUT BACK IN THEIR PROPER LOCATIONS.

DON'T USE ANY CLEANING OR DE-LIMING AGENT THAT CONTAINS ANY SULFAMIC AGENT OR ANY CHLORIDE, INCLUDING HYDROCHLORIC ACID (HCl). TO CHECK FOR CHLORIDE CONTENT SEE ANY MATERIAL SAFETY DATA SHEETS PROVIDED BY THE CLEANING AGENT MANUFACTURER.

IMPORTANT

DO NOT USE ANY METAL MATERIAL (SUCH AS METAL SPONGES) OR METAL IMPLEMENT (SUCH AS A SPOON, SCRAPER OR WIRE BRUSH) THAT MIGHT SCRATCH THE SURFACE. SCRATCHES MAKE THE SURFACE HARD TO CLEAN AND PROVIDE PLACES FOR BACTERIA TO GROW. **DO NOT USE STEEL WOOL**, WHICH MAY LEAVE PARTICLES IMBEDDED IN THE SURFACE WHICH COULD EVENTUALLY CAUSE CORROSION AND PITTING.

Steam Generator and Cooking Chamber

Regular deliming, depending on your steamer usage and local water quality, must be done to enhance performance and prolong the life of your HyPerSteam™ convection steamer. Steamer must be turned off after every use to prevent lime scale buildup - do not run steamer continuously.

ALWAYS USE HOT PADS OR MITTS WHEN HANDLING HOT STEAMER PANELS OR RACKS.

RECOMMENDED TOOLS & CLEANERS:

- Groen Delimer/Descaler (Part Number 114800). **Do NOT use any product containing chlorides or sulfamic acid, including hydrochloric acid .**
- Nylon scrub pad, cloth and/or sponge

DELIMING STEPS (Use Touch Pad):

STEP 1 Press ON/OFF to turn steamer off. Open door.

STEP 2 **Let cavity cool for 5 minutes or longer**. While cool, wipe out cavity.

STEP 3 Pour 2 pints (4 cups) of delimer into deliming port before delime cycle is started and then close port. Double-stacked unit cavities must be delimed separately. Select which cavity to delime first.

STEP 4 Press and hold CLEAN while also turning steamer on by pressing ON/OFF, until only DELIME and POWER lights remain on (all lights will turn on, then off, except DELIME and POWER).

STEP 5 Delime cycle will start, taking about 30 minutes. When delime cycle is complete, DELIME light will appear, DONE light will flash and beeper will beep.

STEP 6 Press ON/OFF to turn steamer off. Let cavity cool for 5 minutes or longer. Open door, wipe out inside of cavity and wipe door gasket. Close door.

STEP 7 To use steamer, press ON/OFF. When READY light appears, steamer is ready to use.

STEP 8 **HY12E/HY12G DOUBLE STACK ONLY:** Double-stacked unit cavities must be delimed separtely. Repeat Step 1 through Step 8 to delime other cavity.

NOTES:

- If DELIME light flashes rapidly (5 times per second), press DELIME to restart delime cycle.

- If power outage occurs during deliming, delime cycle must be restarted. Press DELIME.

- For best performance, do not interrupt delime cycle. If delime cycle must be stopped, press ON/OFF to turn on. Set timer for 5 minutes. After beeper beeps, press ON/OFF to turn off. **Let cavity cool for 5 minutes or longer**, carefully open door(s) and wipe out cavity completely.

Maintenance

The HY-12E Steamer is designed for minimum maintenance, and no user adjustments should be necessary. After prolonged use some parts may need to be replaced.

If there is a need for service, only Groen personnel or authorized Groen representatives should perform the work.

Always supply water with a low mineral content that meets the standards outlined in the **water Conditioning** section of this manual.

If steam or condensate is seen leaking from around the door, take the following steps:

1. Check the door gasket. Replace it if it is cracked or split.

2. Inspect the cooking chamber drain to be sure it is not blocked.

3. Adjust the door latch pin to allow for changes that occur as the gasket ages.

    a. Loosen the lock nut at the latch pin base, and turn the latch pin 1/4 turn clockwise. Retighten the lock nut.

    b. Run the unit again to test for further leakage.

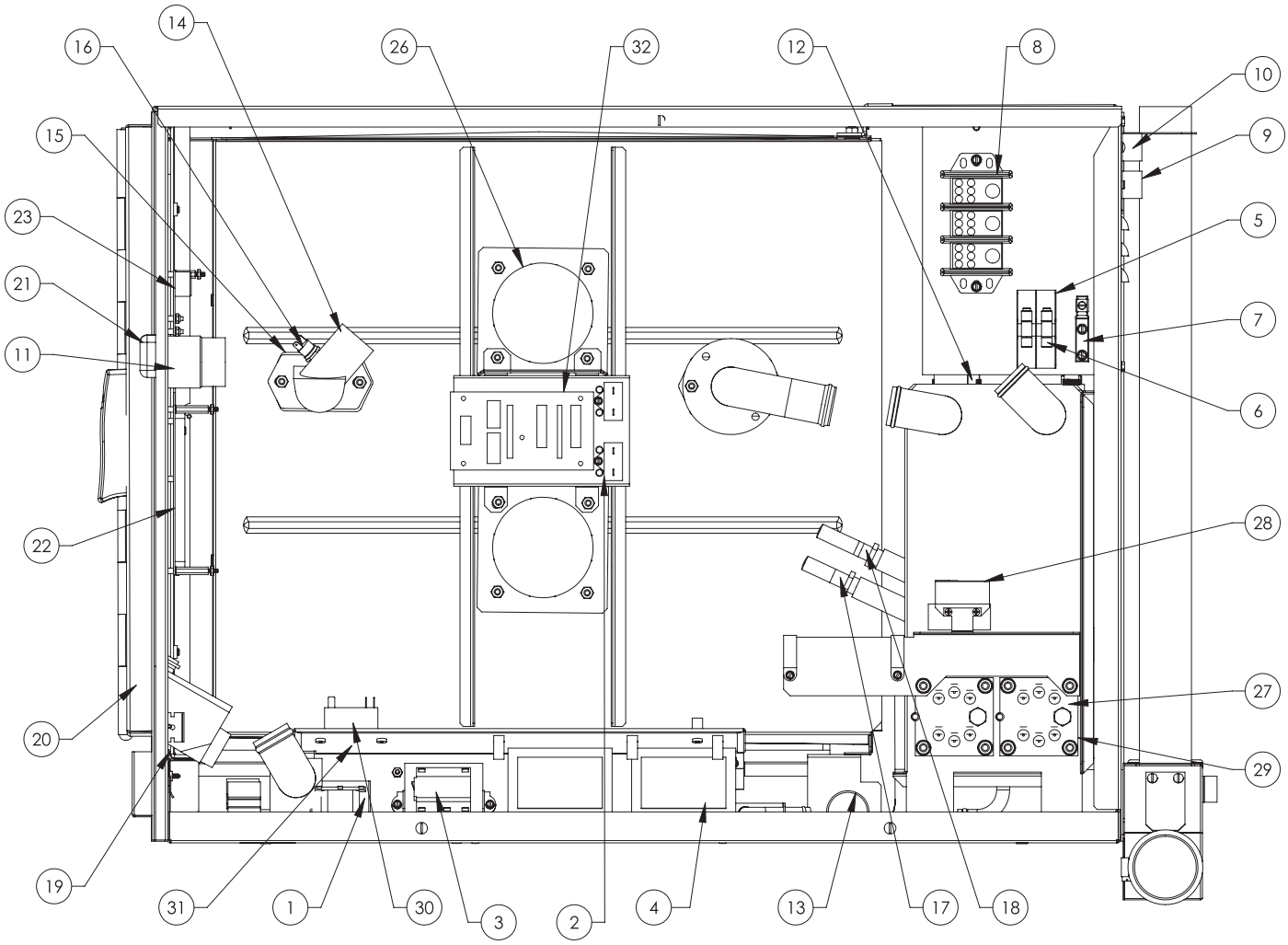
    c. Repeat the adjustment as necessary until the door fits tightly enough to prevent leakage.

Troubleshooting

Your Groen Steamer is designed to operate smoothly and efficiently if properly maintained. However, the following is a list of checks to make in the event of a problem. Wiring diagrams are furnished inside the service panel, and at the back of this manual. If an item on the check list is marked with (X), it means that the work should be performed by a factory-authorized service representative.

SYMPTOM	WHO	WHAT TO CHECK
No indicator lights when ON switch is pressed	User	a. Is electrical power supply connected? b. Are building circuit breakers or fuses all right?
Steam generator does not fill with water	User	a. Is the ON switch depressed? b. Is the electric cupply connected? c. Is the water supply connected? d. Is the water turned on? e. Is the water pressure too low? (Below 30 PSI or 210 kPa) f. Is the screen (filter) at the water connection clogged? g. Has the steam generator been de-limed? (Refer to the Cleaning Section).
No steam	User	a. Is the ON switch depressed? b. Is the water supply connected? c. Is the water turned on? d. Are the steamer doors open? e. Has the steam generator been de-limed? (Refer to the Cleaning Section).
SERVICE light comes on after ten minutes. (See Cleaning Section)	User	a. Is the water supply connected? b. Is the water supply hose kinked? c. Is the water turned on? d. Has the steam generator been de-limed? (See Cleaning Section
Excessive steam escaping from the rear of unit	User	a. Is the water spray hose kinked or obstructed?
	Auth Service Rep Only	b. Is the water solenoid connected? (X) c. Is the drain properly vented? (X)

PARTS LIST - HY-12E



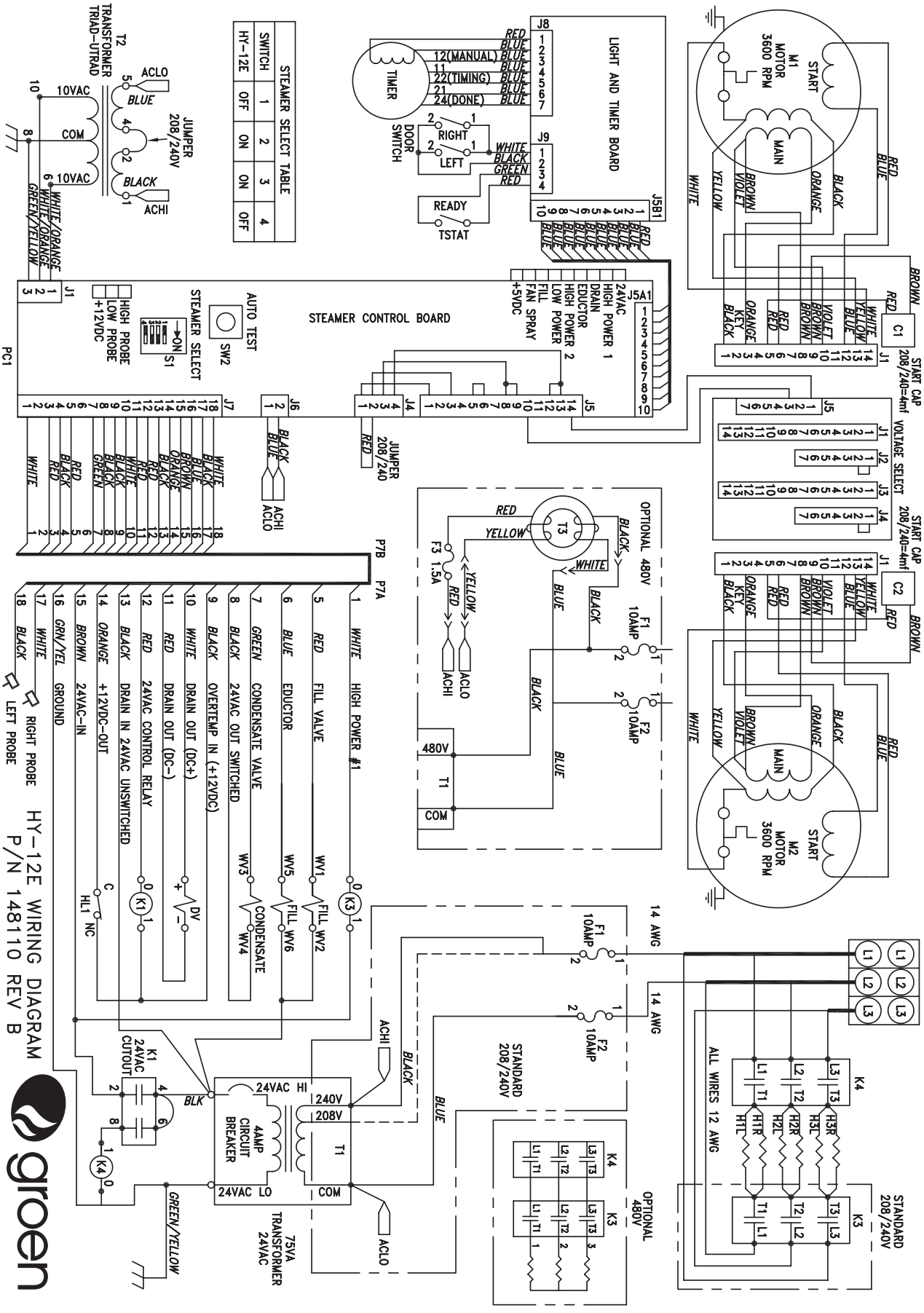
PARTS LIST - HY-12E

To order parts, contact your Groen Authorized Service Agent. Supply the model designation, serial number, part description, part number, quantity, and when applicable, voltage and phase.

Key	Description	Part No.
1	Transformer 20VA	119815
2	Capacitor, 4MF	106270
3	Transformer 208/240v Primary/ 24v secondary, 75VA	121716
4	Contactor	106306
5	Fuseholder	096809
6	Fuse	119897
7	Ground Terminal	106412
8	Terminal Block	070185
9	Water Valve, Condensate	100934
10	Water Valve, Fill	071235
11	Timer	096826
12	Pressure Relief Valve	106392
13	Drain Valve	071234
14	Steam Inlet Port	141336
15	Gasket, Steam Inlet Port	099250
16	Ready Thermostat	088865
17	Water Level Probe Left	141424
18	Water Level Probe Right	141285
19	Door Switch	096857
20	Door Assembly, Complete	106365
21	Knob	123100
22	Control Board	141082
23	Light & Timer Board	137233
24	Control Board Cover	143255
25	Torroid (480V only)	119833
26	Motor Assembly	146880
27	Element 208v 9KW	141189
	Element 240v 9KW	141190
	Element 480v 9KW	141191
28	Thermostat Assembly	094161
29	Gasket, Element	042366
30	Relay, 12VDC	119813
31	Electrical Panel Assembly	142244
32	PC Board Assembly	119875
x	Top Panel	146341
x	Front Panel Overlay	123131
x	Door Latch Pin	141300
x	Door Pin Lock Nut	003823
x	Cavity Fan	106354
x	Generator Assembly	142238
x	Left Pan Rack	106309
x	Door Handle	129723
x	Door Gasket	106209
x	Motor Shaft Seal	096868
x	Blower Cover	141093
x	Right Pan Rack	106316
x	Left Side Panel	146339
x	Right Side Panel	146340
x	Drip Tray	106294
x	Flow Reducer, Condensate	106445
x	Harness, Ready Switch	119878
x	Harness, Voltage Select	119886
x	Harness, Voltage Select Electric	100960
x	Harness, Control Board	141084
x	Harness, Transformer	119862
x	Harness, Jumper	123125
x	Harness, Timer	123120
x	Harness, Control Board to Timer Board	123122
x	Jumper, Voltage Select	123124
x	Harness, Power	148109
x	Harness, Control	148107
x	Harness, Heater	148108

x - Item not depicted/called out in drawing or photograph.

WIRING DIAGRAM - HY-12E



Service Log

Model No. _____ Purchased From _____

Serial No. _____ Location _____

Date Purchased _____ Date Installed _____

Purchase Order No._____ For Service Call_____

Date	Maintenance Performed	Performed by

References

UNDERWRITERS LABORATORIES, INC.
333 Pfingsten Road
Northbrook, Illinois 60062

NATIONAL FIRE PROTECTION ASSOCIATION
60 Battery March Park
Quincy, Massachusetts 002269

NFPA/70 The National Electric Code

NSF INTERNATIONAL
789 N. Dixboro Rd.
P.O. Box 130140
Ann Arbor, Michigan 48113-0140

LIMITED WARRANTY TO COMMERCIAL PURCHASERS*

(Continental U.S. and Canadian Sales Only)

Groen Foodservice Equipment (ìGroen Equipmentî) has been skillfully manufactured, carefully inspected, and packaged to meet rigid standards of excellence. Groen warrants its Equipment to be free from defects in material and workmanship for (12) twelve months with the following conditions an subject to the following limitations.

I. This parts and labor warranty is limited to Groen Equipment sold to the original commercial purchaser/users (but not original equipment manufacturers {O.E.M.}), at its original place of installation in the continental United States, Hawaii and Canada.

II. Damage during shipment is to be reported to the carrier, is not covered under this warranty, and is the sole responsibility of the purchaser/user.

III. Groen, or an authorized service representative, will repair or replace, at Groenís sole election, any Groen equipment, including but not limited to, drawoff valves, safety valves, gas and electric components, found to be defective during the warranty period. As to warranty service in the territory described above, Groen will absorb labor and portal to portal transportation costs (time and mileage) for the first twelve (12) months from date of installation or fifteen (15) months from date of shipment from Groen.

IV. This warranty does not cover boiler maintenance, calibration, periodic adjustments as specified in operating instructions or manuals, and consumable parts such as scraper blades, gaskets, packing, etc., or labor costs incurred for removal of adjacent equipment or objects to gain access to Groen Equipment. This warranty does not cover defects caused by improper installation, abuse, careless operation, or improper maintenance of equipment. This warranty does not cover damage caused by poor water quality or improper boiler maintenance.

V. **THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, EACH OF WHICH IS HEREBY EXPRESSLY DISCLAIMED. THE REMEDIES DESCRIBED ABOVE ARE EXCLUSIVE AND IN NO EVENT SHALL GROEN BE LIABLE FOR SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR THE BREACH OR DELAY IN PERFORMANCE OF THIS WARRANTY.**

VI. Groen Equipment is for commercial use only. If sold as a component of another (O.E.M.) Manufacturerís equipment, or if used as a consumer product, such Equipment is sold AS IS and without any warranty.

***(Covers all Foodservice Equipment Ordered after October 1, 1995)**

NOTES

NOTES

unified brands

A DOVER COMPANY

groen

1055 Mendell Davis Drive
Jackson, MS 39272
Telephone 601 372-3903
Fax 601 373-9587
www.groen.com

OM-HY-12E/24E

Part Number 148667 Rev. D

Manual For Unified Brands/ Groen Model HY-12E/24E Steamer Part Number 148667 REV D